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Professor Nathaniel F. Davis, Brown University, representing the New England College Entrance Certificate Board.

Dean Herman V. Ames, The University of Pennsylvania, representing the Association of Colleges and Preparatory Schools of the Middle States and Maryland.

Principal Frederick L. Bliss, The University School of Detroit, representing the North Central Association of Colleges and Secondary Schools.

Chancellor James H. Kirkland, Vanderbilt University, representing the Association of Colleges and Preparatory Schools of the Southern States.

President Henry S. Pritchett, representing the Carnegie Foundation for the Advancement of Teaching.

Dr. Kendric C. Babcock, as substitute for Dr. Elmer E. Brown, the United States Commissioner of Education.

Dean Frederick C. Ferry, Williams College, representing the New England Association of Colleges and Preparatory Schools.

In its desire to help in the establishment of a uniform and convenient terminology, the committee had requested a sub-committee to prepare for this meeting a report with regard to the use of the terms "hour," "count," "unit," "period," "exercise," "point," etc., in secondary schools and colleges. Mr. Farrand, chairman of the sub-committee, reported the results of the investigation which had been made and embodied these results in the following resolution, which was unanimously adopted:

Resolved, that this committee recommends, as a matter of convenience and to secure uniformity:

1. That the term *unit* be used only as a measure of work done in secondary schools, and that the term *period* be used to denote a recitation (or equivalent exercise) in a secondary school.

2. That the term *hour* be restricted to use in measuring college work, and that the term *exercise* be used to denote a recitation, lecture or laboratory period in a college.

3. That *unit* be used as defined by this committee, the Carnegie Foundation, and the College Entrance Examination Board, and that *hour* be used preferably in the sense of year-hour.

4. That the use of other terms such as *count*, *point*, *credit*, etc., in any of these senses be discontinued.

The sub-committee had been requested also to consider and report on the desirability of agreeing on the precise use of the terms "programs of study," "curriculum" and "course of study." Mr. Farrand reported that this question had been carefully considered by his committee in the light of the published resolutions of the National Association of State Universities and of the Association of American Universities and such further information as could be procured. While conscious of the desirability of uniformity in the use of these terms, the sub-committee felt that it was unwise to take any action until some common usage should have become established in many institutions.

Following a discussion of the question of a combination of the examination and the certification methods of admission to college, Dean Ferry presented the following resolution which was unanimously adopted:

Resolved, that this committee endorses the movement of various colleges in the direction of attaching weight to the school record of each candidate in connection with his entrance examination, and recommends to the colleges that such records be regularly used as an aid in determining the candidate's fitness for admission to college.

The question of the proper use of the term "honorable dismissal" was considered at some length and the secretary was requested to obtain further information on the subject and to report at the next meeting.

Various questions proposed for discussion were laid on the table and the sub-committee, consisting of Headmaster Farrand, chairman, Principal Bliss, President Pritchett and Dean Ferry, was continued with a request that it report again at the next meeting.

The officers of the past year were reelected as follows:

President—President George E. MacLean.

Vice-president—Headmaster Wilson Farrand.

Secretary-treasurer—Dean Frederick C. Ferry.

The full report of the proceedings of the conference will be printed for distribution to the members of the associations which are represented in the committee.

FREDERICK C. FERRY,
Secretary-treasurer

ANTHROPOLOGY AT THE PROVIDENCE MEETING

THE annual meeting of the American Anthropological Association was held in Providence, R. I., December 28-30, 1910, in affiliation with the American Folk-Lore Society. The sessions were held in Manning Hall, Brown University. In the absence of President William H. Holmes, Professor Roland B. Dixon presided. The attendance was good and a number of important papers

were presented. On the morning of December 29 there was a joint meeting of the association and the Archaeological Institute of America in Union Auditorium, at which Miss Alice C. Fletcher presided.

ADDRESSES AND PAPERS

In the absence of President Henry M. Belden, of the American Folk-Lore Society, his address was read by Dr. Charles Peabody. Some of the most important papers read at the joint meeting are represented in this report by abstracts. These are:

Recent Progress in the Study of South American Indian Languages: Professor ALEXANDER F. CHAMBERLAIN.

The author pointed out the regions of the South American continent to which, during the last five years, scientific research had been particularly active: the Colombia-Venezuela border-land, northwestern Brazil, Ecuador-Peru-Bolivia, southern Brazil, etc. Noteworthy are the investigations of Tavera-Acosta, Koch-Grünberg, Rivet and Beuchat, Farabee, E. Nordenskiöld, von Ihering, et al. To Tavera-Acosta we owe rather extensive vocabularies of the Guahiban, Piaroan, Puinavian, Salivan and Yaruran stocks, all of which hitherto have been rather scantily represented by linguistic material. Koch-Grünberg, as a result of his sojourns in northwestern Brazil, has shown the Makuan to be an independent stock, and added much to the linguistic material in print and in manuscripts concerning the Arawakan, Cariban, Betoyan, Miranhan and Uitotan stocks. Rivet and Beuchat, studying the extensive linguistic material obtained by the former of these authors (they are now working jointly), have thrown much light on the ethnologic problems of the Ecuador-Peruvian border-land, delimiting the areas of the Jivaran (Rivet has shown Brinton's "Jivaro" to be really Jebero and, therefore, Laman, or as he terms this stock, Cahuapanan), Zaparan, Laman (Cahuapanan), etc. Rivet believes that the Jivaran has marked Arawakan affinities, and his later studies claim to attach some of the minor stocks of southern Colombia to the Chibchan. Dr. Farabee's investigations have resulted in the accumulation of much lexical and grammatical material concerning the Arawakan peoples of Peru; also vocabularies, etc., from tribes of Pancan, Uitotan, Jivaran and other stocks. The thorough study of this valuable material will add not a little to our knowledge of the linguistics of the Peruvian area. E. Nordens-

kiöld has devoted some attention to the little-known tribes of eastern Bolivia, and we may expect other data of value from him in the near future. To von Ihering belongs the credit of having first established beyond a doubt the independent character of the Chavantean stock. Here should be mentioned also the researches of Barrett recently initiated into the language of the Cayapa, etc., of the Barbacoan stock. Of works of a more or less bibliographical character the most important are Lenz's monograph on the Indian elements in Chilean Spanish, Schuller's contributions to Araucanian bibliography, etc., and Mitre's "Catalogo," with its introduction by Torres.

Recent Literature on the South American "Amazons": Professor ALEXANDER F. CHAMBERLAIN.

The author résuméd and discussed the monographs of Lasch, Friederici and Rothery, all published during the year 1910. Of these the study of Friederici seems the most satisfactory; the book of Rothery, however, the most ambitious, treating the ancient and modern Amazons all over the globe. Dr. Friederici rejects the view of Ehrenreich and Lasch of a unitary origin of the Amazon legends among the northern Caribs, with extension thence over all northern South America. Both in content and origin the Amazon legends differ notably from each other in several cases, and they are of multiple provenance. In some there is evidence of modification and contamination through European sources. Among the causes of the origins of South American "Amazon" legends he enumerates the following:

1. The notably war-like character of women in many primitive American communities.
2. The peculiar power or influential position of women (due to economic, religious, hereditary or other social reasons) in a few tribes, which made a great impression upon the mass of the surrounding communities.
3. Rumors of the barbaric splendors of the empire of the Incas, which had penetrated the wilderness to the east.
4. Reports of certain unusual sexual relations of Indian women, etc.
5. Tales of "Amazons" due to native reports misunderstood by the Spaniards, or from such tales intentionally spread by the latter.

Amazon legends are reported from the West Indies (Ramon Pane records a characteristic one), from Yucatan and from Mexico. The Mexican legends, Dr. Friederici thinks, are "the least founded of all, ethnologically or mythologically"

(p. 23). Ill-founded likewise are the legends from California and the northwest Pacific coast. Incidentally, Friederici points out that the account attributed generally to Orellana, belongs really to Carvajal, and that the river of the "Amazons" received its name from the valor of the Indian women met with by the Spanish explorers.

The Uran: A New South American Linguistic Stock: Professor ALEXANDER F. CHAMBERLAIN.

In 1891 Brinton recognized¹ in the region of Lake Titicaca a Puquina linguistic stock, observing at the same time that "the Puquinas are also known under the names of Urus or Uros, Hunos and Ochozomas." In this he was followed by R. de la Grasserie, in his "Langue Puquina" (1896), and others since then. In 1895-96, Dr. Max Uhle collected from the Urus of Iruitu, etc.,² a vocabulary of some 600 words, many sentences, etc., all of which material seems to be as yet unpublished. In 1897, J. T. Polo visited the Urus of Nazacara and obtained a vocabulary of some 350 words, 33 phrases, etc. This material did not appear in print till 1901³ and constitutes the published linguistic data concerning the Uran stock. The author presented in English alphabetic arrangement a considerable portion of Polo's vocabulary, with grammatical notes, etc. Polo's work seems to have been practically unknown to ethnologists, Roman⁴ being about the only one to recognize its importance and to see that the Uran and Puquinan must be unrelated. Careful examination by the author of this paper of the Uran linguistic material and comparison with Atacamenan, Puquinan, etc., prove beyond a doubt that the language of the Urus of Bolivia constitutes an independent family of speech. The few descendants of the ancient Urus, and the fewer still who keep their mother-tongue (many having adopted Aymará) are to be found scattered along the Rio Desaguadero between Lake Titicaca and Lake Aullagas or Poopo, particularly at Iruitu, Sojapata, Ancoaqui, Ahuallamaya, Nazacara, etc. In the past they evidently occupied a much wider area between these two lakes.

It is worth noting that the confusion of the Urus with the Puquinas began with Hervas, Garcilaso de la Vega, *e. g.*, among the older authorities distinctly separating the two lan-

guages. This separation of the Uran and Puquinan stocks clears up somewhat the linguistic difficulties of this region of South America, but leaves the Puquinas, their origin and the extent of their language-area, perhaps as much of a problem as ever.

The Age-societies of the Plains Indians: Dr. R. H. LOWIE.

Age-societies have been ascribed by ethnologists to a large number of Plains tribes. A sharp definition of the age-factor results in limiting the number to the Blackfoot, Village tribes, Arapaho and Gros Ventre (Atsina). The question arises whether in these cases the age-factor is a basic or derivative feature. Investigation proves that the age-element is a subordinate feature, the collective purchase of ceremonial regalia, songs and dances being apparently the dominant motive.

Some Aspects of New Jersey Archeology: Dr. CHARLES PEABODY.

Slides were shown illustrating the three celebrated strata at Trenton, N. J., on the glacial terrace above the Delaware River, viz., the black soil, the yellow loam, probably of immediate post-glacial deposition and the true "Trenton" gravels underlying the yellow soil.

Attention was called to certain discoveries made during the season's work of 1910 by Mr. Ernest Volk, who has spent large portions of the last twenty-two years in exploration and observation of the region.

1. *The Bison Bone.* On June 22, 1910, in the sand pit of Mr. Ahrendt on the terrace was found an artificial pit; the cross section was: at the top six inches of black soil, under this one foot of yellow loam, and under this a red clay band one inch thick. In the pit were found the femur of a bison and accompanying it fine particles of charcoal. In the red band on one side of the pit lay a chipped water-worn pebble of argillite, and in the same red band to the left, a water-worn pebble of argillite, not chipped.

2. *The Artificial Pit.* On August 23, 1910, in the sand pit of Mr. Ahrendt, on the terrace was found another artificial pit; the cross section: at the top, six inches of black soil; under this yellow loam (with thin red bands) three feet six inches thick; and under this, overlying the pit, three or four inches of brown sand and charcoal. Nothing but charcoal of human provenance was found in the pit.

3. *The Natural Pit.* In the same sand pit, seven feet down under a somewhat similar series

¹ "American Race," p. 221.

² *Globus*, Vol. 69, 1896, p. 19.

³ *Bol. de la Soc. Geogr. de Lima*, Vol. X.

⁴ "Antiq. de la Rég. Andine," Vol. I., 1908.

of natural strata, was a pit made by ice, probably, or by some other natural agency. The importance of commenting on these three pits together consists in drawing attention to the similarity of geological and climatological conditions under which the pits were formed. Light is shed on the question of the contemporaneity of man with the post-glacial conditions which permitted the deposition of the yellow drift and the formation of the series of so-called "ice-pits"; the bison is added to the list of animals which lived as contemporaries with man at this epoch. A photograph taken by Mr. Volk was shown giving the negative in yellow loam of a large boulder which had fallen out; the similarity of forces which were sufficient to transport such boulders during the formation of the yellow drift with those forces undoubtedly of glacial origin that deposited great boulders in the gravels lower down was insisted upon. Reference was made to the continuity, accuracy and fidelity of Mr. Volk's work.

The Historical Value of the Books of Chilan Balam: Mr. SYLVANUS GRISWOLD MORLEY.

The recovery of aboriginal history in America is exceedingly difficult because of the absence of original sources from which it may be constructed. To this general condition, however, the Mayas of Yucatan offer a striking exception. Centuries before the Spanish conquest this intelligent people had developed an accurate chronology and a system of hieroglyphic writing by means of which they recorded their annals.

These aboriginal records were destroyed at the time of the Spanish conquest, but in the century that followed (1550-1650) there grew up a body of native writings called "The Books of Chilan Balam" in which were embodied much of the aboriginal history of this country. The case for and against these chronicles as reliable sources for the reconstruction of Maya history may be summed up as follows:

A. Unfavorable

1. Breaks in the sequence of the katuns, the unit of enumeration used in the chronicles for counting time.

2. Certain disagreements, usually of time, in the statement of facts.

B. Favorable

1. Very general agreement throughout.

2. Early date at which the chronicles were compiled (1550-1650), when the ancient history had not yet been forgotten.

3. Authorship by natives, many of whom had

grown to manhood before the Spanish conquest, and who had had, therefore, opportunities for learning their ancient history at first hand, before European invasion and acculturation.

4. Many corroboratory passages in the early Spanish writers.

There are two important conditions, however, which will explain, in part at least, the discrepancies in the chronicles, which have been noted above under A.

1. The original manuscripts have never been studied and compared, and the present translation was made from hand copies only, a condition pregnant with possibilities for error.

2. The translation itself is not always accurate and indeed in several instances has been shown to be misleading and incorrect.

Recent Archeological Investigations in northern Guatemala: DR. ALFRED M. TOZZER.

The area occupied by the remains of the Maya civilization may be roughly divided into various provinces distinguished from each other by chronological considerations as well as by those dealing with assemblage, construction, the manner and method of decoration and others.

The area treated in detail is that which includes the northeastern part of the Department of Peten, Guatemala. Tikal is the first city of importance in this region. To the east is Nakum, first made known to the scientific world by Count de Périgny in 1908, and Naranjo, explored by Mr. Maler. In addition to these ancient sites the Peabody Museum Expedition of 1909-10 reports the new ruins to the north of Naranjo and Nakum of La Honradez, Porvenir, Azucar, Seibal 2d, and Holmul in Guatemala and those of Tzotzilkitam in British Honduras.

These ruins are all characterized by the presence of one large court or plaza around which in most cases the greater number of stelæ and altars are placed. The plan in each case shows a system of oriented courts all connected with one another with very few detached buildings.

From a study of the dates now available it will be seen that this region occupies the first position in point of time in all the ruins of the Maya area. It is not possible to show at the present stage of the study of the archeology of this section that the Tikal territory was the center from which spread the influence responsible for the cultures of Copan and Palenque. From the evidently later character of certain of the stelæ at Tikal, it may be reasoned that not only was this region a center, which began very early in the

life of the Maya civilization; but that it continued to hold its important position until well toward the end of the time, when the southern Maya culture resigned its place of preeminence to that part of the Maya people living far to the northward.

The results of the investigations of the Peabody Museum Expedition of 1909-10 will appear in the *Memoirs* of the museum.

Cretan Anthropometry: Professor CHARLES H. HAWES.

Since Professor Boyd Dawkins and Dr. Duckworth concluded that the ancient Cretans belonged to the long-headed dark short Mediterranean race, the examination of additional ancient skulls and measurements of living Cretans made by me have gone far to confirm this conclusion, and to show that the *average* modern Cretan is a modification of this type and has a broader head than his ancestor.

Nevertheless, the facts here set forth demonstrate that the ancient Cretans or Minoans with their characteristic long head are still represented in the more inaccessible regions, and that the broadening element is due to the presence of brachycephals who are mainly confined to the plains and coasts. Further, the facts are interpreted to indicate that the broad heads are descendants of aliens, and in the main to prehistoric immigrants.

The data for Minoan skulls is obtained from 118 crania, of which I use here 78 male skulls (c. 2000 B.C.), leaving out those of the Late Minoan period, during which there is both archeological and anthropological evidence of an alien immigration. These 78 skulls yield an average cranial index of 74.0, and the long heads are to the broad heads as 5 to 1.

The data for modern Cretans is large, amounting to over 60,000 measurements and observations, and for this reason comparisons are at present confined to the cephalic index. Adding 199 Cretans measured by Dr. Duckworth to those measured in my expeditions of 1905 and 1909, we have a total of 3,183. But from these have been deducted foreigners, women and children and even Mussulman Cretans, leaving 2,290 modern Cretans as the basis for the following comparisons. These yield an average cephalic index of 79.0 to be compared with 76.0 (*i. e.*, 74.0, the cranial index, plus 2.0, allowance for the cephalic). The average modern Cretan is therefore mesaticephalic, midway between his ancestor, the ancient Cretan, and his neighbor, the modern Greek (c. 82.3);

and the long heads are to the broad heads in the proportion of 5 to 4. The difference is appreciable and impels us to ask, do the descendants of the ancient Cretans, with a cephalic index of 76.0, exist in Crete to-day? If so, it is reasonable to suppose that the invading aliens have driven the natives up into the hills, and there we find them. Present in the plains, they predominate in the mountains. In the mountain plain of Lasithi (2,700 ft.) the average cephalic index is 76.5, with a proportion of 9 dolichocephals to 1 brachycephal. On the northern slopes of Mount Ida the cephalic index is 76.5. On the northern slopes of the White Mountains, in the west, in one village, 65 men averaged 76.9 compared with 79.9 in the plains immediately below. In the Messara Mountains of the center, the average was 76.9 in contrast to 80.9 in the plains. Twenty-eight skulls of revolutionists of 1821 and 1866 chosen at random from the mausoleum of a mountain monastery, yielded a *cranial* index of 74.2 and a ratio of 4½ long-heads to 1 broad-head. In the less accessible mountain regions are thus to be found modern Cretans of similar cephalic index and ratio of dolichocephals to brachycephals to those of Minoan Crete.

How then has the *average* cephalic index risen in 4,000 years from 76 to 79? I have already suggested that this change is due to the presence of the descendants of prehistoric immigrants. Reviewing historic invasions, it is possible to dispense with both Turkish and Venetian somatological influence. Mussulmans have been rigidly excluded from these records and the Venetians, I have shown by a careful comparison of the Venetian-named Cretans with the rest, possess exactly the same average cephalic index, thus evincing a breeding-out in the course of nine generations of the infusion of Venetian blood that Crete received. This leaves us with the prehistoric invasions of the Achaeans and the Dorians, which tradition, history and archeology attest. Anthropometry witnesses to an invasion of broad heads in the third Late Minoan period (1450-1200 B.C.). It is to the Dorian inroad, a migration of a people, rather than to the freebooting Achaeans, that I attribute the chief part in the broadening of the Cretan head. This is best illustrated in the southwest corner of Crete in the eparchies of Sphakia and Selinon. The Sphakiots are by tradition and dialect Dorians, and seem to have maintained the purity of their blood by resisting all invaders and by the custom of endogamy. They and their neighbors have average cephalic

indices of 80.4 and 80.9 and the broad heads are in the majority of 3 to 2 and 3 to 1. If we assume, as many scholars do, that the Dorians ultimately came from Illyria we have an explanation to hand. The Illyric stock is unmistakable and exceptional in Europe to-day, in that it combines a broad head with a tall frame. In this southwest corner of Crete is a broad-headed people with a stature of 1,709 mm. (cf. Dalmatians 1,711 mm.) whereas the central and western Cretans average 40 mm. less.

A further test made with an instrument I had just invented, the comparison of the sagittal curve of the living head brings out a striking likeness between the brachycephalic Sphakiots, the Albanians (the oldest inhabitants of Illyria) and the Tsakonians, a tribe in the east of the Peloponnesus, 8,000 in number, who still speak a Dorian dialect unintelligible to the Greeks. These three peoples, all with claims to Dorian descent, separated by hundreds of miles, yield exactly similar sagittal curves, and their *normal* types very closely approximate, whereas the contrast to that of the Mediterranean race is extraordinary.

The Social Organization of the Winnebago Indians: Dr. PAUL RADIN.

The topics discussed by Dr. Radin included: (1) the village organization; (2) the phratries; (3) the clans (animal names, animal descent, clans); (5) the clan functions (clan feasts, clan names); (4) the ceremonials associated with the clans; (5) the clan functions (clan feasts, clan wakes); (6) marriage; (7) death and mortuary customs; (8) the hunt; (9) the warpath.

Dr. Radin closed with a general theoretical discussion of the phratries and clans.

The Religious Ideas of the Winnebago Indians:

Dr. PAUL RADIN.

This subject was also treated topically: (1) the guardian spirits associated with the ceremonial societies and with the clans; (2) their "nature" (nature deities and "spirit" animals) and the specific powers they control; (3) the "inheritance" of guardian spirits *per se*, and in association with the clan and the ceremonial organization; (4) the "degrees" in the attitude toward guardian spirits; (5) the conception of life, death, future life and transmigration, its bearing on the social organization; (6) the ceremonial associated with the attainment of long life, with death, future life, transmigration, and miscellaneous religious beliefs; (7) the guardian spirits as the basis of the ceremonial organizations and

the influence of their disappearance on the type of ceremonial organization; (8) the impossibility of separating the social and religious factors in their attitude toward the guardian spirits and the general conceptions; (9) discussion as to the probable historical development of the religious-social complex.

Polynesian Gods: Professor ROLAND B. DIXON.

The characteristics of the four great gods of Polynesia were discussed, and the relative importance of these deities in the different island groups pointed out. Kane, Ku and Lono were suggested as forming a connected group, with Kanaloa quite separate and differing in origin. It was suggested that the latter might probably be derived from a Melanesian deity, whereas the triad showed indications of an origin in Indonesia.

Polynesian and Melanesian Mythology: Professor ROLAND B. DIXON.

The myth incidents of the Polynesian and Melanesian areas were considered in their distribution, and in their relation to the mythology of Micronesia and Malaysia. The general results of this comparison seemed to accord with the theories of migration and cultural origins derived from a study of material culture.

A Pre-Pajaritan Culture in the Rio Grande Drainage: Dr. EDGAR L. HEWETT.

On the high bench lands bordering the Chama River on the south, the writer recorded in the summer of 1905 a large number of ruins of a different character from any of the well-known ancient Pueblo ruins of Pajarito plateau. During the past summer many more of the same character were noted and surveyed in the Ojo Caliente valley. These ruins consist of foundations of cobble-stone inclosing rectangular rooms. Some of the ruin groups are of great extent. A typical group consists of a central circular structure of stone, probably in part subterranean, an open plaza surrounding it, then the foundation walls extending out in all directions. The entire settlement is divided into two parts by a narrow irregular street. That these ruins antedate the great community houses of the Pajaritan culture is shown by the facts that the walls are reduced to the grass level and that these ruins in some cases partly underlie the structures of the latter period.

Abstracts were furnished by some authors who were not able to be present and read their papers. These abstracts are also given:

A Note on the Persistence of some Mediterranean Types: Miss GEORGIANA G. KING.

In Italy and Spain one meets the local frescoes and portraits at times in the streets. I am told that Leonards and Luinis abound in the Milanese, and a friend of mine has seen a mother and three daughters conspicuously Etruscan in Massa Marittima. Myself I have seen the following and can show photographs for the elder part (I have no modern photographs): In Siena, children like Matteo di Giovanni's. In Viterbo, a woman like the "Roman School." In the Emilia, women like Mantegna's and the local school. In Arles, women like the Roman Sarcophagi. In Venice, ecclesiastics like Gentile Bellini's; women like Carpaccio's. In Spain, women like the Lady of Elche.

These last are alike in the matter of figure and carriage and expression, as well as feature.

The Double Curve Motive in Eastern Algonkian Art: Dr. FRANK G. SPECK.

This paper presents a brief preliminary report of investigations in decorative art being carried on among the tribes of the northeastern Algonkian group, including the Abenadi, Penobscots, Passamaquoddies, Malisits, Micmacs, Montagnais and Nasdapis. The predominant design unit is a figure described for convenience as the "double curve," two opposing incurves. Variations of this elementary figure occur so universally throughout the region discussed, that the double curve motive is really characteristic. While it is also seen occasionally in Iroquois and Ojibway art, it is none the less distinctive of the northeastern Algonkians. Formerly the designs were produced in the moose hair and porcupine quill techniques, and by painting; nowadays most of the examples are seen in beadwork, except among the Nasdapi, where painted decorations still occur. In wood carving and etching on birch bark the more southerly tribes still preserve the old type of decoration.

The main body of material discussed in the paper is based upon collections made among the Penobscots, who are being made the subject of an independent monograph by the writer. Some forty typical forms of the double-curve design, showing different degrees of elaboration, are used. The simplest is the bare double curve, the modifications ranging up through highly complex examples with a score or so of compounded ornaments filling up the interior. In the more modified examples the original double-curve unit is sometimes hardly distinguishable on account of the numerous embellishments. Aside from simple ornament, not any particular symbolism has so

far been found that would apply to the whole region. Investigations in the field of symbolism have only produced satisfactory results among the Penobscots, where the designs seem to have originally been floral representations with a magical medicinal value through the association of the design with the herbal remedies which play so important a part in the life of these Indians. Judging, however, from the lack of such an interpretation among the Malisits, so far as has been discovered, it would seem, at present, as though the matter will have to be investigated along independent lines in each particular tribal area.

Materia Medica of the Algonkian Indians of Virginia: Mr. J. OGLE WARFIELD.

This paper treats: (1) Of the subject as recorded by the early authorities. This is far from being full and concise and yet is of value even for the little information it contains. (2) The remnants of these tribes now remaining, having been so closely kept in contact with the English settlers and their descendants for the past three hundred years, have lost all ceremonial functions and ideas connected therewith; and have even lost the limiting of such practise to any particular person or coterie of such persons. That which they use is chiefly in the form of decoctions or "teas" made of barks and roots, which are gathered and made by the mother or grandmother of the family; outward applications are also used. Quite a number of such remedies were obtained. They are not simply recollections of the past, but are used and believed in firmly.

In the absence of Professor Hiram Bingham, his paper on "The Ruins of Choquequirau" was read by Mr. George P. Winship. It and the paper (read by title) by Mr. Stansbury Hagar on "The Four Seasons of the Mexican Ritual of Infancy," are to be published in the *American Anthropologist*. Dr. Edward Sapir's two papers, "The Wolf Ceremonial of the Nootkas" and "The Linguistic Relationship of Nootka and Kwakiutl," will also appear in the *American Anthropologist*.

The papers read, of which the secretary was unable to obtain abstracts were:

Professor Wm. H. Goodyear: "Measurements in 1910 in the Spiral Stairway of the Leaning Tower of Pisa."

Dr. Elihu Grant: "Philistine and Hebrew in Palestine."

Professor E. M. Fogel: "The Survivals of Germanic Heathendom in Pennsylvania German Superstitions."

Professor Arthur C. L. Brown: "Fire and Fairies with Reference to Chrétien's *Yvain*, vv. 4385-4575."

Mr. Phillips Barry: "A Garland of Ballads."

The following papers were read by title:

Professor William H. Holmes: "The Place of the Esthetic in Human Welfare."

Professor Junius Henderson: "Tewa Ethnozoology."

Mr. W. W. Robbins: "Tewa Ethnobotany."

Miss Barbara Freire-Marreco: "Notes on Tewa Medical Practise."

Mr. John P. Harrington: "The Mesquite and its Uses."

Dr. Walter Hough: "The Dog in Pueblo, Mexican and Peruvian Mortuary Customs."

Miss H. Newell Wardle: "The Cradle-board in Ancient Mexico."

At one o'clock on Wednesday, the twenty-eighth, the corporation of Brown University gave a luncheon in the Administration Building, President Faunce receiving. The afternoon of the same day was devoted to sight-seeing; visits were made to the John Hay Memorial Library, the John Carter Brown Library, the Ann Mary Brown Memorial and the Rhode Island School of Design, followed by a reception at the Providence Art Club.

GEORGE GRANT MACCURDY

YALE UNIVERSITY,
NEW HAVEN, CONN.

FIFTH ANNUAL MEETING OF THE ENTOMOLOGICAL SOCIETY OF AMERICA

THE fifth annual meeting of the Entomological Society of America was held at the University of Minnesota, Minneapolis, December 27 and 28, in the school of mines building. The president, Dr. J. B. Smith, presided throughout the session. In the absence of the secretary-treasurer, Professor J. G. Sanders was elected secretary pro tem.

The following papers were read during the session:

"Notes on the Tingid *Leptobyrsa explanata* Heid.," E. L. Dickerson.

"Notes on *Sanninoidea exitiosa*," J. B. Smith

"The Structure of Spermatophores in Crickets," J. P. Jensen.

"The Biological Survey of the Insect Life of Kansas," S. J. Hunter.

"An Experimental Study of the Death-feigning Habits of *Belostoma (Zaitha) flumineum* and

Nepa apiculata Uhler," H. C. and H. H. Severin.

"Announcement of Further Results secured in the Study of Tachinidæ and Allies," C. H. T. Townsend.

"Some Suggested Rules to govern Entomological Publications," T. D. A. Cockerell.

The report of the committee on nomenclature was received and ordered printed.

The report of the executive committee showed that nineteen new members had been received during the year and four lost through death.

The result of the mail vote ordered by the society at the Boston meeting was that the annual dues of the society should be two dollars, this to include a subscription to the *Annals of the Entomological Society of America*.

The following officers were elected:

President—Professor Herbert Osborn.

First Vice-president—Professor Lawrence Bruner.

Second Vice-president—Professor Alex. D. MacGillivray.

Secretary-Treasurer—Professor Alex. D. MacGillivray.

Additional Members of the Executive Committee—Professor J. H. Comstock, Professor J. B. Smith, Professor C. J. S. Bethune, Dr. W. M. Wheeler, Dr. H. Skinner, Dr. A. D. Hopkins.

The annual public address was given in Handicraft Hall by Professor F. L. Washburn, "The Typhoid Fly in the Minnesota Iron Range."

ALEX. D. MACGILLIVRAY,
Secretary-Treasurer

SOCIETIES AND ACADEMIES

THE NEW YORK ACADEMY OF SCIENCES
SECTION OF BIOLOGY

A REGULAR meeting of the Section of Biology was held at the American Museum of Natural History, January 16, 1911, Chairman Frederic A. Lucas presiding. The following papers were read: *Cryptomeric Inheritance in Onagra*: C. STUART GAGER.

An abstract of this paper appeared in SCIENCE for February 3, 1911, p. 191.

Field Notes on Japanese Whales: Roy C. ANDREWS.

The speaker gave an account of a recent seven-months' stay at the Japanese whaling stations, telling of the methods employed in capturing and preparing the whales for commercial use; also of new notes on the habits of finback, blue and sei whales.

The latter species, called by the Japanese "sar-